Poly Processing Company Position Statement

Sodium Hypochlorite (NaOCl) Storage Tanks for 9 – 15 wt %

**Tank:**
- **IMFO® TANK of crosslinked polyethylene with OR-1000™, 1.9 spg rating**
  - Provides full drainage to prevent sludge build up
- Non IMFO® alternative:
  - Vertical, flat-bottom tank, crosslinked polyethylene with OR-1000™, 1.9 spg rating

Black or white color or insulation with mastic coating **required** in outdoor applications to minimize bleach degradation.

**Secondary Containment: REQUIRED**
- Alternatives:
  - PPC secondary containment basin of crosslinked polyethylene
  - Other secondary containment suitable for sodium hypochlorite and of adequate size

**Fittings:**
- **Sidewall:**
  - 3” maximum size on the lower 1/3 sidewall
  - Fitting must keep sodium hypochlorite from contacting tank wall cross section
- **Dome:** No restrictions

Fitting Material of Construction:
- PVC & CPVC (schedule 80), titanium
- DO NOT use stainless steel or Alloy C-276 because nickel content contributes to the decomposition of sodium hypochlorite

Gasket Material of Construction: Latharge Viton or EPDM

**Plumbing to the tank:**
- Required use of **flexible connections** with fittings on lower 1/3 of sidewall
  - Allows for lateral and vertical expansion and contraction of the tank
  - Reduces pump and piping vibration stress on the tank, fittings, and gaskets

Flexible connections, piping, and valves must have structural support independent of tank sidewall and dome

**Venting:**

<table>
<thead>
<tr>
<th>Mechanical Pump Fill</th>
<th>Pneumatic Fill</th>
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<tbody>
<tr>
<td>IF ≤ 1000 gallons</td>
<td>IF - Vent length ≤ 3 feet</td>
</tr>
<tr>
<td>Vent size should equal size of largest fill or discharge fitting</td>
<td>AND - Vent screen mesh size ≥ 1/4&quot; or no screen used</td>
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<tr>
<td>IF &gt; 1000 gallons</td>
<td>Emergency Pressure Relief Cover Required</td>
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<tr>
<td>Vent size should exceed the largest fill or discharge fitting by 1 inch</td>
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<tr>
<td>Tanker Discharge</td>
<td>Inter/Fitting Size</td>
</tr>
<tr>
<td>2”</td>
<td>2”</td>
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<tr>
<td>3”</td>
<td>3”</td>
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</tbody>
</table>

*(2) 2 inch vents DO NOT EQUAL 4 inch venting capacity*

For detailed venting guidelines, please visit our Technical Resources at www.polyprocessing.com

**Foundation and Restraints:**
- PPC IMFO® tank pad or smooth concrete, asphalt, or steel foundation designed to accommodate IMFO®

No restraint or ladder attachment bands circumscribing the tank are allowed; cable restraint systems must pass cables over the top of the tank or utilize molded-in lifting lugs when appropriate.

**Temperature:**
- Product should not exceed 100 degrees F at delivery or during storage to reduce decomposition of the sodium hypochlorite

**CAUTION!**
- The life of a tank is affected by the quality of the sodium hypochlorite stored. Tank owners are cautioned to **use high quality sodium hypochlorite** with low iron, nickel, and copper content. These metals contribute to the decomposition of the sodium hypochlorite and accelerate the oxidation and degradation of the tank.